

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Sub	stitute for form 1449/PTO	Complete if Known		
		Application Number	10/824,865	
IN	FORMATION DISCLOSURE	Filing Date	April 15, 2004	
		First Named Inventor	Barry Gelernt	
S	TATEMENT BY APPLICANT	Art Unit		
	(Use as many sheets as necessary)	Examiner Name		
Sheet	1 of 3	Attorney Docket Number	112074.00004	

Examiner	Cito	Document Number	Publication Date	Name of Patentee or	Green Columns Lines Where	
nitials*	Cite No.1	Number-Kind Code <sup>2 (f known)</sup>	MM-OD-YYYY	Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
ME		US- 3,638,201	01-25-1972	Borner		
		<sup>US-</sup> 4,122,551	10-24-1978	Urbach	-	
		<sup>US-</sup> 4,598,395	07-01-1986	Smith		
		<sup>US-</sup> 4,712,887	12-15-1987	Baer		
		<sup>US-</sup> 5,645,964	07-08-1997	Nohr et al.		
		US- 5,858,586	01-12-1999	Nohr et al.		
		<sup>US-</sup> 6,028,835	02-22-2000	Thomas		
		<sup>US-</sup> 6,243,348	06-05-2001	Goodberlet		
		<sup>US-</sup> 6,369,398	04-09-2002	Gelernt		
		<sup>US-</sup> 6,373,869	04-16-2002	Jacob		
		US- 6,525,868	02-25-2003	Merriam et al.		
		<sup>US-</sup> 6,529,463	03-04-2003	Goodberlet		
		<sup>US-</sup> 6,605,815	08-12-2003	Gelernt		
		<sup>US-</sup> 5,185,552	02-09-1993	Suzuki et al.		
		<sup>US-</sup> 4,091,290	05-23-1978	Bjorklund et al.		
		<sup>US-</sup> 4,128,772	12-05-1978	Chang et al.		
$\Delta Z$		<sup>US-</sup> 5,848,079	12-08-1998	Kortz et al.		
		<sup>US-</sup> 5,194,740	03-16-1993	Kogelschatz et al.		
ME		<sup>US-</sup> 5,499,282	03-12-1996	Silfvast		

FOREIGN PATENT DOCUMENTS												
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	Γ						
		Country Code <sup>3</sup> "Number <sup>4</sup> "Kind Code <sup>5</sup> (if known)	MM-DD-YYYY		Or Relevant Figures Appear	۲٥						
ME		WO 99/63536	12-09-1999	Massachusetts Institute of Te	3							
						L						
						L						
			1									

Examiner Signature	/Muhammad Edun/	(01/06/2007)	Date Considered	01/06/2007

\*EXAMINER: bitial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document when the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Please	type a	plus	sign (-	+)	inside this	box	→	+
--------	--------	------	---------	----	-------------	-----	---	---

Sheet

Pto/SB/08A (08-00)

Approved for use through 10/31/2002.

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substite	ute for form 14	49A/PTO		Complete if Known		
				Application Number	10/824,865	
INF	ORMAI	ION DI	SCLOSURE	Filing Date	April 15, 2004	
STA	ATEMEI	NT BY	APPLICANT	First Named Inventor	Barry Gelernt	
				Group Art Unit		
(use as many sheets as necessary)				Examiner Name		
heet	2	of	3	Attorney Docket Number	112074.00004	

	U.S. PATENT DOCUMENTS											
Examiner Initials*	No.1	U.S. Patent   Number	Document Kind Code <sup>2</sup> (If known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Peges, Columns, Lines, Where Relevant Passagas or Relevant Figures Appear						
M		5,500,459		Hagemeyer et al.	03-19-1996							
ME		5.510.230		Tennant et al.	04-23-1996							
MR		5,559,338		Elliott et al.	09-24-1996							
ME		5,686,728		Shafer	11-11-1997							
_												
				<del></del>								

	FOREIGN PATENT DOCUMENTS												
		F	oreign Patent Do	cument	Name of Patentee or	Date of Publication of	Pages, Columns, Lines,	T					
Examiner Initials	Cite No. <sup>1</sup>	Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)	Applicant of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	T					
								$\perp$					
								↓					
		L						1_					
		<u> </u>						╀					
						ļ. <u></u>	<del> </del>	+					
		igspace		$\longrightarrow$		1		4					
						1		- [					

Examiner	/Muhammad Edun/ (01/06	5/2007) Date	01/06/2007
Signature	/ Harianmaa Baari/ (01/00	Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

<sup>1</sup> Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). \*For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 18 if possible. <sup>8</sup> Applicant is to place a check mark here if English language Translation is attached.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Peperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number,

Substitu	ite for form 1449/PTO		<u></u>	Complete if Known			
				Application Number	10/824,865		
			CLOSURE	Filing Date	April 15, 2004		
STATEMENT BY APPLICANT				First Named Inventor	Barry Gelernt		
	(Use as many she	unte so s	ocorrand	Art Unit	_		
	(Oso as many six	010 63 7		Examiner Name	_		
Sheet	3	of	3	Attorney Docket Number	112074.00004		

Examiner Cite No.1		OTHER PRIOR ART-NON PATENT LITERATURE DOCUMENTS  Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.						
		"Hard Disk Recording Aims to Get Perpendicular," Peter Singer, Semiconductor International, September 2002, Volume 25, Number 10, pgs. 50-54.						
		"CD-ROM Technical Summary From Plastic Pits to "Fantasia," Andy Poggio, obtained at <a href="http://pauillac.inria.fr/~lang/hotlist/cdrom/Documents/tech-summary.html">http://pauillac.inria.fr/~lang/hotlist/cdrom/Documents/tech-summary.html</a> , printed 07/22/04, 7 pgs						
		"Everything You Wanted To Know About DVD-R. (Technology Information)", Andy Parsons, Computer Technology Review, February 2000, pgs 1-3 and March 2000, pgs. 1-3. obtained at http://www.findarticles.com. printed 7/27/04.						
		"Quenching and Radiative Lifetimes for NH (b'c', v'= o) , B. Gelernt et al., Chemical Physics Letters, Volume 36, number 2, Nov. 1, 1975, pgs. 238-241.						
		"New Bands In the ND 2 3 - 2 System; Spectroscopic Constants Of The 2 State", W. Cheung, B. Gelernt, and T. Carrington, Chemical Physics Letters, Volume 66, number 2, 10/1/1979, pgs. 287-290						
		"Optical Data Storage", H. Coufal and G.W. Burr, International Trends in Applied Optics, ch. 26, 2002, pgs. 609-628.	•					
		"Blue Laser CD Technology", Robert L. Gunshor and Arto V. Nurmikko, Scientific American, July 1996, pgs. 48-51.						
$\bigvee$		"121.6 nm radiation source for advanced lithography", Jianxun Yan et al., J. Vac. Science & Technology B, Microelectronics and Nanometer Structures, Volume 20, number 6, Nov/Dec. 2002, pgs. 2574-2577						
ME		"Prospects for photolithography at 121 nm", V. Liberman et al., J. Vac. Science & Technology B, Microelectronics and Nanometer Structures, Volume 20, number 6, Nov/Dec. 2002, pgs. 2565-2573.						

Examiner	/Muhammad Edun/	(01/06/2007)	Date	01/06/2007
Cianatura	/Mananinaa Baan/	(01/00/2007)		UI/U0/ZUU/
Signature			Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.